

**REMARKS**

Claims 1-41 are currently pending in the subject application and are presently under consideration. Claims 32 and 37 have been amended as shown on pp. 7-8 of the Reply.

Favorable reconsideration of the subject patent application is respectfully requested in view of the comments and amendments herein.

**I. May 29, 2007 Telephonic Interview with Examiner**

Initially, Applicants gratefully acknowledge the extra attention given by the Examiner to the outstanding issues in the present application by way of conducting a telephonic interview with the undersigned on May 29, 2007 (12:30 pm EST). While no agreement was reached in the interview, Applicants specifically appreciate the extra discourse on the subject of the rejection based on obviousness. Applicants in turn present their position below in earnest that the invention is nowhere taught or suggested by the prior art of record, taken alone or in combination, at least for the reasons presented in Section III of these Remarks.

**II. Summary of the Invention**

For some initial pretext, with the invention, a request for a hierarchical data stream, such as a request for an XML stream, specifies a mode from a set of different modes for organizing the information returned in the XML stream.

For instance, in a first mode, primary-foreign key information is utilized when generating the data stream to organize the data stream. In another mode, the order of the tables in the query defines the organization of the data stream. In yet another mode, an explicit definition of the organization of the stream is contained in the query, including nesting information.

In this regard, depending upon which mode of a set of modes is designated in the query, the resulting data stream is organized differently. Applicants respectfully submit that the prior art does not teach or fairly suggest the designation of a mode from a set of modes that defines the way a data stream is organized when returned from the query.

**III. Rejection of Claims 1-31 and 34-36 Under 35 U.S.C. §103(a)**

Claims 1-31 and 34-36 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Cheng, et al. (US 6,366,934) in view of newly cited Richard, et al. (US 6,484,160). Upon

review of the recent case law set forth by the Supreme Court in *KSR Intl v. Teleflex* respecting non-obviousness, Applicants respectfully submit that the prior art of record is not properly combinable under 35 U.S.C. § 103.

In this regard, both Cheng, et al. and Richard, et al. each disclose different complicated systems predicated on very different standards, protocols and technologies. As with any complicated system, the objects, structures and methodologies of such systems are inextricably linked to one another within their respective systems, and are inseparable from their implementations as a result. In this regard, Applicants respectfully submit that Richard, et al. and Cheng, et al. are not properly combinable at least because the two systems implement non-analogous standards, protocols, technologies and because the respective systems of Richard, et al. and Cheng, et al. are designed for different, unrelated purposes. One of ordinary skill in the art would thus be led away from combining these two references as described in more detail below.

#### **The Disclosure of Richard, et al.**

The system disclosed by Richard, et al. relates to Index Sequential Access Method (ISAM) technology, which describes the structures of records, and is a method for accessing files structured in the form of records divided into one or more indexes and data. Col. 4, lines 3-5

The problem identified by Richard, et al. is that a generic condition for storing objects imposed by the old version of CMIS-DB (i.e., a local object manager for the Common Management Information Service, ITU-T Recommendation T X.710) is to physically read all the selected objects belonging to the scope before evaluating the filter in storage. When there are a lot of objects subordinate to an object, performance can be quite poor. Col. 4, lines 32-37

In this regard, in summarizing the system, Richard, et al. states the basic concept ... is to use an indexing mechanism that is found in indexed files of the ISAM type or in relational or object-oriented databases **so as to be able to index certain object attributes**. Col. 6, lines 35-39

More specifically, the passage relied upon in the Official Action states that the system of Richard, et al. makes “it possible to perform complex operations on a very large number of objects **while reducing the search times for the instances selected by the scope and filter arguments of CMIS operations**” (Col. 5, lines 1-5).

The Official Action concludes that it would have been obvious to modify Cheng, et al. by

the disclosure of Richard, et al. “to include designating a mode from a plurality of modes with the motivation to **optimizing accesses to a database** organized into trees as taught by Richard et al.”

### **The Disclosure of Cheng, et al.**

However, in clear contrast, while Cheng, et al. may relate generally to relational database technology, Cheng, et al. does not focus on “optimizing accesses to a database” at all. Rather, Cheng, et al. relates to an extender that provides a new abstract data type and includes a plurality of user defined functions for storing, querying and retrieving structured documents internally, as character-based large objects (CLOB), or externally, in flat files or URLs. See, e.g., Abstract. In this regard, nowhere is Cheng, et al. understood to address the problem of optimizing accesses to a database for CMIS systems based on reducing searches of B-tree indexes. In fact, Cheng, et al. expressly disavows the approaches proposed by Richard, et al. stating that

“an alternative has been proposed to implement the B+ tree index structures inside the text search engine and then to perform the search. However, this approach is very expensive to implement. Another approach involves the creation of actual tables having columns storing attributes of XML documents. An index can be created on the columns and this index could support searches. This approach wastes space and cannot efficiently maintain the extra table.” Cheng, et al., Col. 3, lines 9-18

Accordingly, Cheng, et al. and Richard, et al. address unrelated problems and provide different complex computing systems that are predicated on disparate technologies, and explicitly teach away from such a combination within the four corners of the documents.

Moreover, by any stretch, “scope and filter arguments of CMIS operations” disclosed by Richard, et al. are not conceded herein to be the same as “designating a mode from a plurality of modes,” as claimed by Applicants in various embodiments. Accordingly, Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1-31 and 34-36 under 35 U.S.C. § 103 for at least the above reasons.

### **IV. Rejection of Claims 32-33 and 37-41 Under 35 U.S.C. § 102(e)**

Without conceding the propriety of the rejections, claims 32 and 37 have been amended herein consistent the idea, patentably distinct from the art of record, that the mode information of Applicants’ invention is designated from a plurality of modes and is specified in the query.

In sum, Applicants invention teaches the ability, for the same query, to designate a mode from a set of pre-defined modes for organizing a hierarchical data stream retrieved via the query. Thus, the same query can designate a first mode of the modes for organizing the hierarchical stream in which case the hierarchical stream is organized according to the first mode. Or, the same query could be formulated designated a second mode of the modes for organizing the hierarchical stream in which case the hierarchical stream is organized according to the second mode.

Accordingly, as discussed at length in previous communications, Cheng, et al. cannot be said to teach or fairly suggest “forming a query identifying a mode from a set of rowset transformation modes that specify how at least one rowset is to be transformed based on the query and … transforming the rowset into the XML data stream in response to the query based on the mode identified in the query, the data stream organized according to the order of the tables in the query,” as recited in claim 32, or “forming a query specifying a mode from a set of query processing modes that indicate how a data stream is to be produced based on the query and … processing the rowset to produce a data stream in response to the query based on the mode identified in the query, wherein the produced data stream is organized according to the organizational structure defined in the query,” as recited in claim 37. Applicants respectfully request reconsideration and withdrawal of the rejection of claims 32 and 37 in view of the amendments made herein.

With respect to claim 40, Applicants respectfully submit that the mere identification of a table in Cheng, et al. does not teach or fairly suggest a “universal table” as claimed. In this regard, embodiments of the invention predicated on a query including information for generating a universal table are described at least at paragraphs **[0049] to [0052]** of Applicants’ specification. Accordingly, at least for this reason, Cheng et al. cannot be said to teach or fairly suggest “processing the rowset to produce the data stream defined by the universal table,” as recited in claim 40.

Reconsideration and withdrawal of the outstanding rejection under 35 U.S.C. § 102(e) is thus respectfully requested.

**CONCLUSION**

The present application is believed to be in condition for allowance in view of the above comments and amendments. A prompt action to such end is earnestly solicited.

In the event any fees are due in connection with this document, the Commissioner is authorized to charge those fees to Deposit Account No. 50-1063 [MSFTP1470USB].

Should the Examiner believe an additional telephone interview would be helpful to expedite favorable prosecution, the Examiner is invited to contact applicants' undersigned representative at the telephone number below.

Respectfully submitted,  
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